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Tong Shao

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EXAMINER

JOHNSON, CARLTON

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/693,224	<b>Applicant(s)</b> SHAO, TONG	
	<b>Examiner</b> CARLTON V. JOHNSON	<b>Art Unit</b> 2436	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 51-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 51-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 4-8-2009 has been entered.

2. Claims **51 - 70** are pending. Claims **1 - 50** have been cancelled. Claims **51 - 70** are new. Claims **51, 67** are independent. This application was filed 10-24-2003.

### ***Response to Arguments***

3. Applicant's arguments have been fully considered but they are partially moot due to new grounds of rejection.

3.1 The claimed invention as a whole discloses: (1) two physically separated networks (an internal and an external network); (2) a processor able to operate in two operational states; (3) the capability to switch between the two operational states; (4) a non-maskable interrupt operation used to switch operational state.

The Watts prior art discloses two physically separated networks (a host network and an access network) (see Watts paragraph [0030], lines 1-11: Ethernet connection (network adapter); second is a network connection for data transfer with Access

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network; third is a network connection for data transfer with host network; (Host and Access networks); paragraph [0043], lines 1-18: physically separated networks (home and access networks)). And, the Heider prior art discloses a central processor unit that is operational in two operational states. (see Heider col. 15, lines 64-67: save state information (storage) for resumption, capability to switch between a first status state and a second status state) The Heider prior art discloses the completion of a non-maskable interrupt instruction to switch operational state. (see Heider col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s); col. 17, line 63 - col. 18, line 4: command capability (control commands))

The claimed invention was reviewed as a whole and an obviousness disclosure has been used to rejection this application using Watts (20020129276), Heider (5,276,863) and Largman (20020188887).

### ***Claim Objection***

4. Claims **68 - 70** are objected to because of the following informalities: Claim **68** is dependent on Claim **47** which has been cancelled. Claim **69** is dependent on Claim **48** which has been cancelled. Claim **70** is dependent on Claim **49**, which has been cancelled. Claims **68, 69, 70** will be interpreted as dependent on independent Claim **67**.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **51 - 70** are rejected under 35 U.S.C. 103 (a) as being unpatentable over **Watts** (US PG PUB No. **20020129276**) in view of **Heider** (US Patent No. **5,276,863**) and further in view of **Largman et al.** (US PG PUB No. **20020188887**).

**Regarding Claim 51**, Watts discloses a computing system for securely accessing two separate networks, comprising:

- a) a central processing unit which is able to operate in a first and a second operation status; (see Watts paragraph [0046], lines 1-3: use of a general purpose processor and software which can operate in two operation statuses)

Furthermore, Watts discloses the following:

- f) a first network (see Watts paragraph [0030], lines 1-11; paragraph [0043], lines 1-18: physically separated networks (home and access networks), first, second networks) and
- g) a second network (see Watts paragraph [0030], lines 1-11; paragraph [0043], lines 1-18: physically separated networks (home and access networks), first, second networks), wherein said first and second networks are physically separated, wherein said first network can not be connected in said second

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operation status, and said second network can not be connected in said first operation status; (see Watts paragraph [0030], lines 1-11: Ethernet connection (network adapter); second is a network connection for data transfer with Access network; third is a network connection for data transfer with host network; (Host and Access networks); paragraph [0043], lines 1-18: physically separated networks (home and access networks)) and

- h) a switch device operatively communicated with said central processing unit to switch said operation status between said first and second operation status (see Watts paragraph [0013], lines 4-13: switch between networks), wherein in said first operation status, said central processing unit is connected to said first storage unit, and said computing system is connected with said first network, wherein in said second operation status, said central processing unit is connected to said second storage unit, and said computing system is connected with said second network. (see Watts paragraph [0028], lines 1-6: switch box: has a connection for the Host network to pass data; a connection for the Access network to pass data)

Watts does not specifically disclose storing information of said operation status respectively and said first and second operation statuses are utilized by said central processing unit to execute computing operation in each operation status respectively. And, Watts does not specifically disclose that during the switching of operation status said central processing unit doesn't execute other computing operations.

However, Heider discloses storing information of said first operation status wherein said information is saved when said computing system is switched from said first operation status to said second operation status and is utilized by said central processing unit to resume computing operation in said first operation status when said computing system is switched from said second operation status to said first operation status, wherein storing program addresses or data information of said first operation status; (see Heider col. 15, lines 64-67: save state information (storage) for resumption, capability to switch between a first status state and a second status state)

And, Heider discloses storing information of said second operation status wherein said information is saved when said computing system is switched from said second operation status to said first operation status and is utilized by said central processing unit to resume computing operation in said second operation status when said computing system is switched from said second operation status to said first operation status, wherein storing program addresses or data information of said second operation status; (see Heider col. 15, lines 64-67: save state information (storage) for resumption, capability to switch between a first status state and a second status state)

And, Heider discloses during the switching of operation status said central processing unit doesn't execute other computing operation (see Heider col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) to perform request (i.e. command))

It would have been obvious to one of ordinary skill in the art to modify Watts

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whereby during the switching of operation status said central processing unit doesn't execute other computing operation as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

Watts-Heider does not specifically disclose a first and second storage unit and first and second display memory.

However, Largman disclose a first storage unit storing information and a second storage unit storing information; a first display memory; a second display memory storing the display information of said second operation status; and a second hard disk. (see Largman paragraph [0021], lines 1-12: switch between entire sets of storage devices, network connections)

It would have been obvious to one of ordinary skill in the art to modify Watts-Heider for storage devices and display memory as taught by Largman. One of ordinary skill in the art would have been motivated to employ the teachings of Largman to more easily create and update templates used in network repairs, perform software installations and "updates" of client computers. (see Largman paragraph [0006], lines 12-17)

**Regarding Claim 52**, Watts discloses the computing system, as recited in claim 51, wherein said switch device comprises a status switch command input unit adapted to



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trigger an input signal for switching between said first operation status and said second operation status (see Watts paragraph [0031], lines 1-4: data packets pass back and forth from host network connection to node network connection or back and forth from access network to node network connection); a secured switch control unit communicating with said command input unit and said central processing unit in such a manner that when said input signal is triggered, said secured switch control unit is adapted to generate a switch control signal which is then transmitted to said central processing unit for initialing a switching task between said first operation status and said second operation status (see Watts paragraph [0030], lines 9-11: fourth network connection is a connection for control of the switch box through the host network (control signal for controlling switch box)); and a connection switch unit communicating with said secured switch control unit for switching connection between said storage unit and said first and second network when said central processing unit is ready. (see Watts paragraph [0028], lines 1-6: switch box: computer uses connection to control which network (first and second) is connected to the node)

Watts-Heider does not specifically disclose a first and a second storage unit. However, Largman disclose a first and a second storage unit. (see Largman paragraph [0021], lines 1-12: switch between entire set of storage devices, network connections)

It would have been obvious to one of ordinary skill in the art to modify Watts-Heider for a first and a second storage device as taught by Largman. One of ordinary skill in the art would have been motivated to employ the teachings of Largman in order to more easily create and update templates used in network repairs, perform software

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installations and "updates" of client computers. (see Largman paragraph [0006], lines 12-17)

**Regarding Claim 53**, Watts discloses the computing system, as recited in claim 52, switch control unit. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node) Watts does not specifically disclose secured switch prevents said central processing unit from performing other program and reacting to other interrupts. However, Heider discloses wherein during said switching process, secured switch prevents said central processing unit from performing other program and reacting to other interrupts. (see Heider col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s))

It would have been obvious to one of ordinary skill in the art to modify Watts for the secured switch to prevent said central processing unit from performing other program and reacting to other interrupts as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claim 54**, Watts discloses the computing system, as recited in claim 53. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node) Watts does not

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specifically disclose a non-maskable interrupt (NMI). However, Heider discloses wherein said secured switch control unit sends a non-maskable interrupt (NMI) to said central processing unit to execute operation status switching when said input signal is triggered. (see Heider col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s))

It would have been obvious to one of ordinary skill in the art to modify Watts for a non-maskable interrupt (NMI) as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claims 55, 56,** Watts discloses the computing system, as recited in claim 52, wherein said secured switch control unit. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node) Watts does not specifically disclose an identification verification unit which is adapted to verify identity of a user giving said external switching command. However, Heider discloses further comprising an identification verification unit which is adapted to verify an identify of a user giving said external switching command so as to ensure said switching between said first operation status and said second operation status is carried out by an authorized and legitimate user. However, Heider discloses wherein an identification verification unit which is adapted to

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verify an identify of a user giving said external switching command so as to ensure said switching between said first operation status and said second operation status is carried out by an authorized and legitimate user. (see Heider col. 14, lines 26-34: authorization and authentication performed (i.e. user identity, ID verification), switch operation only allowed if authorization succeeds)

It would have been obvious to one of ordinary skill in the art to modify Watts for an identification verification unit which is adapted to verify an identity of a user giving said external switching command as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claim 57**, Watts discloses the computing system, as recited in claim 51.

Watts does not specifically disclose a storage unit storing information of said operation status respectively wherein said information of said first and said second operation status is utilized by said central processing unit to execute computing operation in said operation status respectively. And, Watts does not specifically disclose that during the switching of operation status said central processing unit doesn't execute other computing operations. However, Heider discloses wherein said information of said first operation status which is saved in said first storage unit (see Heider col. 15, lines 64-67: save state information for resumption, capability to switch between a first status state

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and a second status state) when said computing system is switched from said first operation status to said second operation status comprises data in the alterable status register in said first operation status, wherein said information of said second operation status which is save in said second storage unit when said computing system is switched from said second operation status to said first operation status comprises data in the alterable status register in said second operation status. (see Heider col. 15, lines 64-67: save state information for resumption, capability to switch between a first status state and a second status state; col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s); col. 17, line 63 - col. 18, line 4: command capability (control commands))

It would have been obvious to one of ordinary skill in the art to modify Watts whereby the switching of operation status and central processing unit doesn't execute other computing operation as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claim 58**, Watts discloses the computing system, as recited in claim 57, wherein said data in said alterable status register saved in said first storage unit is utilized to resume said alterable status register when said computing system is switched from said second operating status to said first operation status, wherein said data in

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said alterable status register saved in said second storage unit is utilized to resume said alterable status register when said computing system is switched from said first operating status to said second operation status. (see Heider col. 15, lines 64-67: save state information for resumption, capability to switch between a first status state and a second status state; col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s); col. 17, line 63 - col. 18, line 4: command capability (control commands))

It would have been obvious to one of ordinary skill in the art to modify Watts whereby switching of operation status and central processing unit doesn't execute other computing operation as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claims 59, 60, 61, 62,** Watts discloses the computing system, as recited in claims 52, 54, 56, 58. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node) However, Heider discloses wherein said secured switch control unit comprises a write-protect memory communicating with said central processing unit, wherein said write-protect memory stores the control commands for said central processing unit to perform operation status switching; and a monitoring unit adapted to receive said input signal for

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switching operation status from said command input unit, and interrupt said central processing unit to perform said control commands for operation status switching. (see Heider col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s); col. 17, line 63 - col. 18, line 4: command capability (control commands))

It would have been obvious to one of ordinary skill in the art to modify Watts for control commands and to receive an input signal for switching status (a non-maskable interrupt (NMI)) as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claims 63, 64, 65, 66,** Watts discloses the computing system, as recited in claims 59, 60, 61, 62. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node) Watts does not specifically disclose a NMI signal. However, Heider discloses wherein further comprises a set trigger electrically connected to said monitoring unit for sending out a NMI signal to said central processing unit when switching operation status is allowed, and a reset trigger electrically connected to said monitoring unit and said set trigger in such a manner that when switching of said two operation statuses is finished, said monitoring unit is adapted to send a signal to said reset trigger, which then reset said set trigger and mask said switching function of said connection switch unit for

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preventing illegitimate switching between said two statuses. (see Heider col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s); col. 14, lines 35-38: authorization fails, reset saved state (i.e. ON state, console state); col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized during reset operation)

It would have been obvious to one of ordinary skill in the art to modify Watts for masking said switching function of said connection switch unit for preventing illegitimate switching between said two statuses (a non-maskable interrupt (NMI)) as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claim 67**, Watts discloses a method of securely switching at least two operation statuses to access at least two physically separated networks alternatively, wherein said method comprises the steps of:

- (f) connecting to a second network; (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node)
- (k) connecting to said first network; (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node)



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(m) switching back to said first operation status. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node)

Watts does not specifically disclose: (a) receiving a request; (b) analyzing said request; (c) sending a non-maskable interrupt; save information of said first operation status; (g) reading information of said second operation; and (h) processing requested function.

However, Heider discloses:

(a) receiving a request for switching said computing system from a first operation status to a second operation status by a command input unit; (see Heider col. 5, lines 53-63; col. 13, lines 48-49: perform switch, from one state to another state; col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) to perform request (i.e. command); col. 17, line 63 - col. 18, line 4: command capability)

(b) analyzing said request for switching to determine whether to execute; (see Heider col. 14, lines 26-34: authorization and authentication performed (i.e. user identity, ID verification), switch operation only allowed if authorization succeeds)

(c) sending a non-maskable interrupt to said central processing unit to process operation status switching if said request switching is accepted; (see Heider col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) utilized to process command(s))

(d) saving information of said first operation status in a first storage unit; (see Heider col. 15, lines 64-67: save state information for resumption)

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- (g) reading information of said second operation status; (see Heider col. 15, lines 64-67: access state information for resumption))
- (h) processing requested function in said second operation status; (see Heider col. 5, lines 53-63; col. 13, lines 48-49: perform switch, from one state to another state; col. 17, line 63 - col. 18, line 4: command capability)
- (i) saving information of said second operation status; (see Heider col. 15, lines 64-67: save state information for resumption))
- (l) reading information of said first operation status; (see Heider col. 15, lines 64-67: access state information for resumption))

It would have been obvious to one of ordinary skill in the art to modify Watts for:

(a) receiving a request; (b) analyzing said request; (c) sending a non-maskable interrupt; save information of said first operation status; (g) reading information of said second operation; and (h) processing requested function as taught by Heider.

One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

Watts does not specifically disclose connecting to a second storage unit and connecting to a first storage unit.

However, Largman discloses:

(e) connecting to a second storage unit; (see Largman paragraph [0021], lines 1-12:

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switch between entire sets of data storage devices (first and second storage units))

(j) connecting to said first storage unit; (see Largman paragraph [0021], lines 1-12: switch between entire sets of data storage devices (first and second storage units))

It would have been obvious to one of ordinary skill in the art to modify Watts-Heider for connecting to a second storage unit and connecting to a first storage unit as taught by Largman. One of ordinary skill in the art would have been motivated to employ the teachings of Largman in order to more easily create and update templates used in network repairs, perform software installations and "updates" of client computers. (see Largman paragraph [0006], lines 12-17)

**Regarding Claim 68**, Watts discloses the method, as recited in claim 67, wherein in step (b) further comprising switching said computing system from said first operation status to said second operation status. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node) Watts does not specifically disclose verifying an identification of a user executing said request for switching. However, Heider discloses wherein in step (b) further comprises a step of verifying an identification of a user executing said request for switching said computing system. (see Heider col. 14, lines 26-34: authorization and authentication performed (i.e. user identity, ID verification), state switch only allowed if authorization succeeds)

It would have been obvious to one of ordinary skill in the art to modify Watts for verifying an identification of a user executing said request for switching as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claim 69**, Watts discloses the method, as recited in claim 67. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node) Watts does not disclose masking a switching function during said switching of operation status, so as to minimize a possibility of said operation status being switched illegitimately. However, Heider discloses wherein a step of masking a switching function during said switching of operation status, so as to minimize a possibility of said operation status being switched illegitimately. (see Heider col. 5, lines 53-63; col. 13, lines 48-49: perform switch, from one state to another state; col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) to perform request (i.e. command))

It would have been obvious to one of ordinary skill in the art to modify Watts for masking a switching function during said switching of operation status, so as to minimize a possibility of said operation status being switched illegitimately as taught by Heider. One of ordinary skill in the art would have been motivated to employ the

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teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

**Regarding Claim 70**, Watts discloses the method, as recited in claim 67, further comprises a step of said processing operation status switching is executed by a prearranged control program. (see Watts paragraph [0028], lines 1-6: switch box (control unit); computer uses connection to control which network is connected to the node; paragraph [0046], lines 1-3: implementation using custom integrated circuits or a general purpose processor and software) Watts does not specifically disclose ensuring that said processing operation status switching is executed so as to prohibit illegitimate switching of said operation status. However, Heider discloses wherein a step of ensuring that said processing operation status switching is executed so as to prohibit illegitimate switching of said operation status. (see Heider col. 5, lines 53-63; col. 13, lines 48-49: perform switch, from one state to another state; col. 14, lines 15-17: non-maskable interrupt (i.e. NMI) to perform request (i.e. command))

It would have been obvious to one of ordinary skill in the art to modify Watts for ensuring that said processing operation status switching is executed so as to prohibit illegitimate switching of said operation status as taught by Heider. One of ordinary skill in the art would have been motivated to employ the teachings of Heider in order to eliminate any need to separately upgrade a number of computer systems when

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revisions are made in the computer systems themselves or in the procedures used for management, maintenance, and debugging. (see Heider col. 4, lines 7-13)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARLTON V. JOHNSON whose telephone number is (571)270-1032. The examiner can normally be reached on Monday thru Friday , 8:00 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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